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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,072	02/27/2004	Shigeo Kudo	F-8140	7278

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EXAMINER	
KNABLE, GEOFFREY L	
ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/789,072	KUDO ET AL.	
	Examiner	Art Unit	
	Geoffrey L. Knable	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) *4-7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☒ Claim(s) *8-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Applicant's election of group I, claims 1-3 and 8-11 in the reply filed on July 25, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 4-7[1] are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 25, 2006.

3. The abstract of the disclosure is objected to because it is not in single paragraph form. Correction is required. See MPEP § 608.01(b).

4. Claims 8-11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim (i.e. claim 3 in this instance). See MPEP § 608.01(n). Accordingly, the claims 8-11 have not been further treated on the merits.

5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 4-5, reference is made to a "main part casing", a "screw shaft" and a "head region" - there however is no explicit indication that these are part of or form the extruder (or how they relate to each other in the extruder), this raising some potential for confusion in assessing the scope of the claim - it is suggested that these be

[1] As noted in the prior requirement for restriction, although claim 7 defines in the preamble "A method for manufacturing ...", it is dependent upon claim 6, which is directed to an apparatus, and as such, this claim was grouped with the apparatus claims and applicant has not challenged this grouping.

more explicitly defined at least as forming part of and/or defining the extruder to help avoid this potential ambiguity.

In claim 1, it is arguably not entirely clear whether the claim is actually requiring an explicit step of "extruding a rubber material in a form of a ribbon" given that this is prefaced with "when..."

In claim 2, no antecedent has been established for "the head". Further, it is noted that claim 1 only defines a "head region", this region being defined apparently as including the die, whereas claim 2 is defining the "head" as distinct from the die, this also creating an ambiguity.

In claim 2, line 3, "when the extruding" is awkward and confusing.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. (US 2002/0089077) optionally taken in view of at least one of [Hendry (US 2,746,089) and Henning (US 2,688,770)].

Ogawa et al. discloses extruding a rubber material suitable for winding to form a tire rubber part, the reference specifically suggestion provision of temperature control and in particular indicating that

> "Advantageously, the rubber material flowing through the screw extruder unit and the gear pump unit is maintained at a temperature within a range of approximately 85-95.degree. C., and the rubber material flowing through the extrusion head unit is maintained at a temperature within a range of approximately 95-100.degree. C. " (paragraph [0015]).

As such, this reference is considered to suggest that the temperature in the head region be controlled higher than that in the main part of the extruder. Relative temperatures in the main part casing versus the screw shaft are not however explicitly provided. It is noted however that all externally applied heat is apparently applied though heaters external to the extruder, gear pump and extruder head respectively. As such, in view of these reference teachings only mentioning externally applied heat, it is considered that the artisan would have found it obvious to provide the external casing to be controlled to be higher in temperature than at least part of the screw shaft (esp. the beginning thereof). Further, although the reference does mention cylinder temperature control (to a lower temp.) relative to the rubber temperature adjacent the screw, this is only in reference to the rubber "adjacent to a downstream end of the screw" (paragraph [0016]), this therefore not being considered to suggest that the screw (and especially initial parts thereof) would be at higher temperature - i.e. this is considered to be merely

a reflection of the fact that heat is generated during the operation of the screw, the highest temperatures being at the end of the screw. Hendry has been optionally applied as further evidence that in the art of extruding plastic and rubber materials(col. 1, lines 15-20), it is apparently also known and conventional to continuously cool the screw (col. 22, lines 35-38) throughout all operations. Henning provides a similar disclosure providing evidence of the conventional nature of cooling the screw in rubber extrusion. To control temperatures such that the casing is higher than at least part of the screw is thus considered to be obvious. As to claim 2, given that Ogawa et al. provides a separate heater just for the die/head as well as that it expresses no indication that the die should be at a lower temperature, it is considered implicit or obvious that the die would or should be at least the same temperature as the rest of the head.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. (US 2002/0089077) optionally taken in view of at least one of [Hendry (US 2,746,089) and Henning (US 2,688,770)] as applied to claims 1 and 2 above, and further in view of the admitted state of the prior art.

To provide a rubber strip configured with a profile as claimed would have been obvious in view of the admitted state of the prior art at page 8, lines 14-20, this indicating an art recognized understanding that such rubber strips preferably have such a profile.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
August 5, 2006